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H50003 / H50083

User's Manual

Installation Guide

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Installation Guide for Windows 2000, Windows XP Home / Professional, XP Professional x64 Edition, Vista 32 / 64 Families, Windows 7 32 / 64 Families, and Windows Server 2003, 2008 R2 64-bit

System Requirements

- Computer with Pentium 200 MMX or higher processor.
- Windows 2000, Windows XP Home / Professional, XP Professional x64 Edition, Vista 32 / 64 Families, Windows 7 32 / 64 Families, and Windows Server 2003, 2008 R2 64-bit
- 20 MB Hard Disk free space or above
- Sound card for voice features
- 1 available PCI slot.
- CD-ROM drive.

Modem Installation

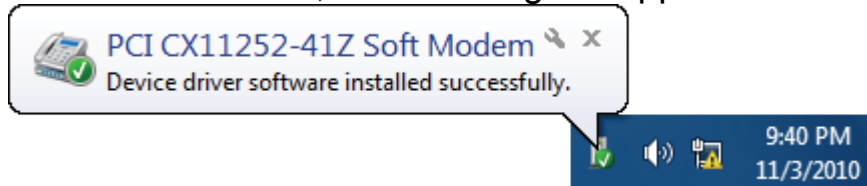
1. Please turn off your computer and disconnect the power cable.
2. Please remove the cover from your computer. Please check your computer's manual for instructions and cautions regarding the removal of covers or installation of add-in boards.
3. Please select an empty PCI slot and remove the appropriate expansion slot cover from the computer.
4. Please insert the Internal 56k Modem into the PCI slot and secure with a screw in the backplane.
5. Please replace the Computers cover.
6. Please insert one end of the telephone cord into the Modem's Line (top) Socket.
7. Please connect the other end of the phone cord to a telephone phone point, via the supplied adaptor (RJ11) if required.
8. Please turn on your computer.

For Windows 2000/XP/2003 User:

As Windows starts, it will detect a new hardware has been plugged or added, and start the " **Add New Hardware Wizard / Found New Hardware Wizard**". Click on " **Cancel**".

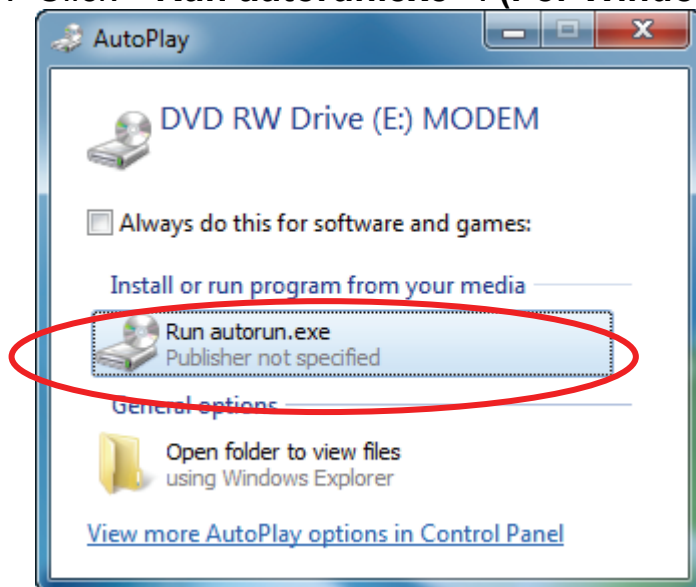
For Windows Vista/Win7/2008 User:

As Windows starts, the following will appear on screen.



9. Please insert the analog Modem communication CD into your CD-ROM drive.

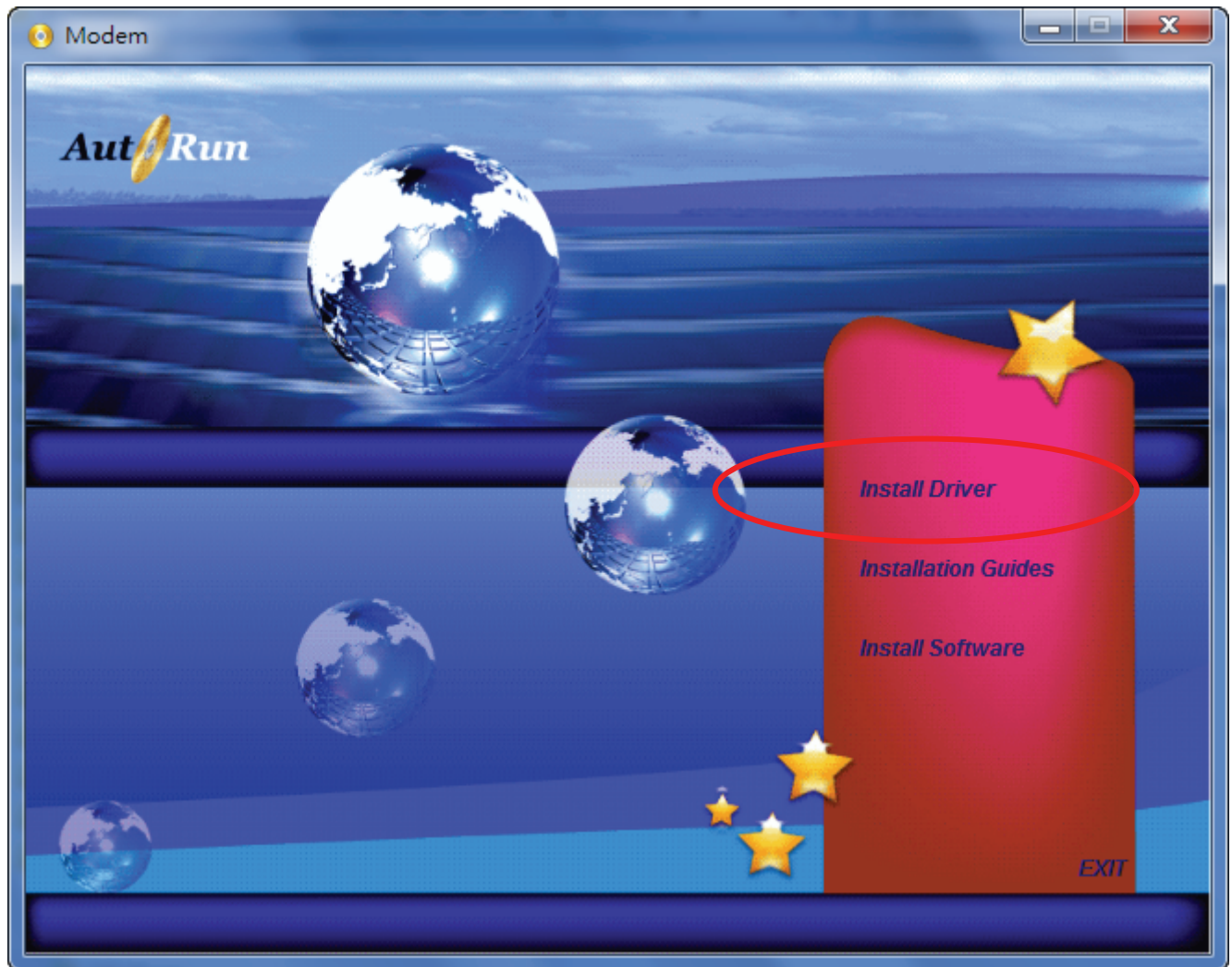
10. Click " **Run autorun.exe**". (For Windows Vista/2008/Win7 User only)



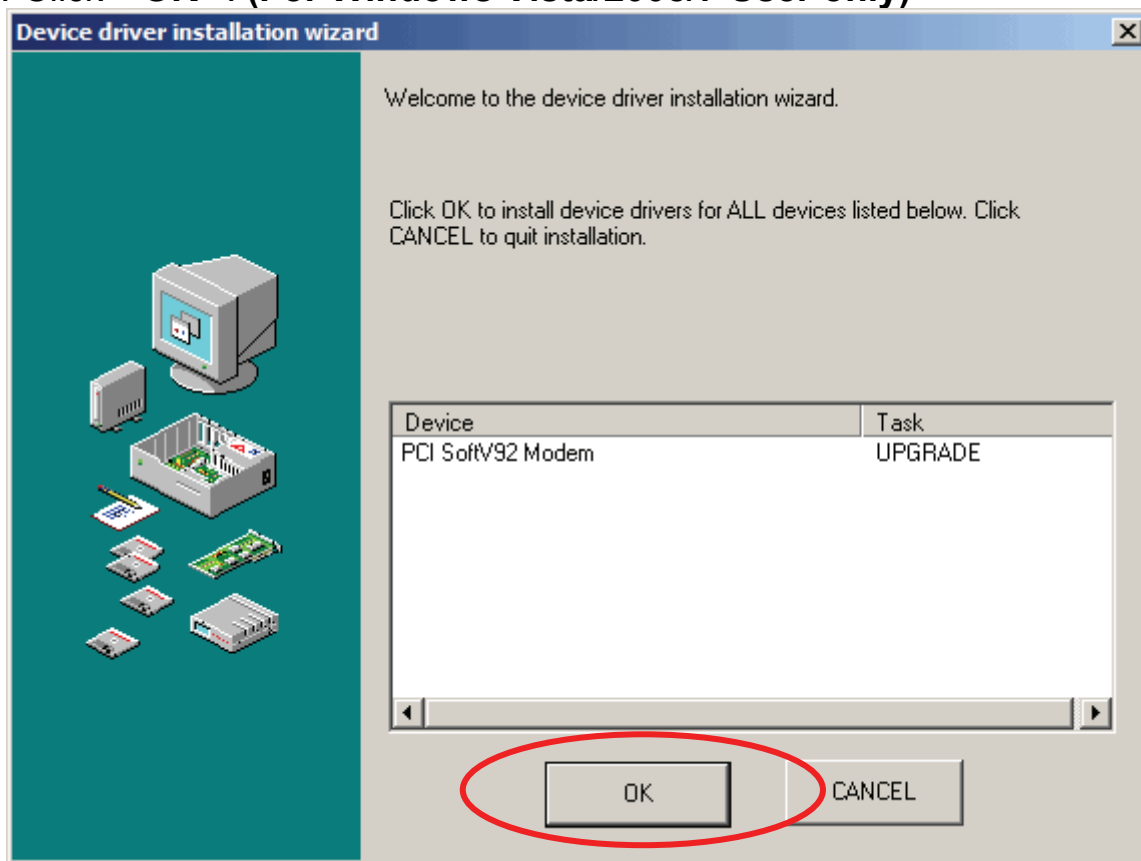
11. The CD should auto-start, displaying the following window. If it does not start, click on Start – Run and type in **CD:\autorun.exe** (where CD is the drive letter of your CD-ROM drive).

12. For Security reasons Windows 7/Vista requires the installer program to have administrator privileges so the new policy called " **User Account Control**" has been introduced in Windows 7/Vista. If UAC is enabled Windows pops up a window " **User Account Control**" Windows need your permission to continue. User needs to click " **Yes / Allow / Continue**" to proceed with the installation.

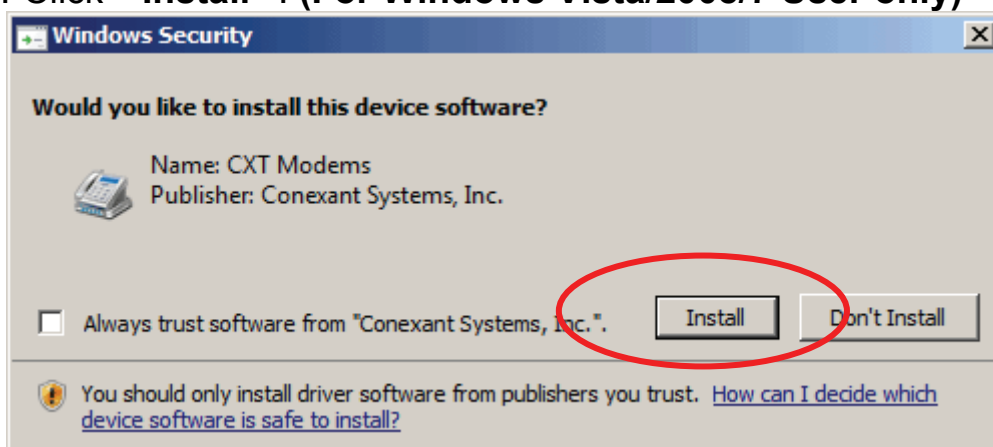
13. Please select " Install Driver ".



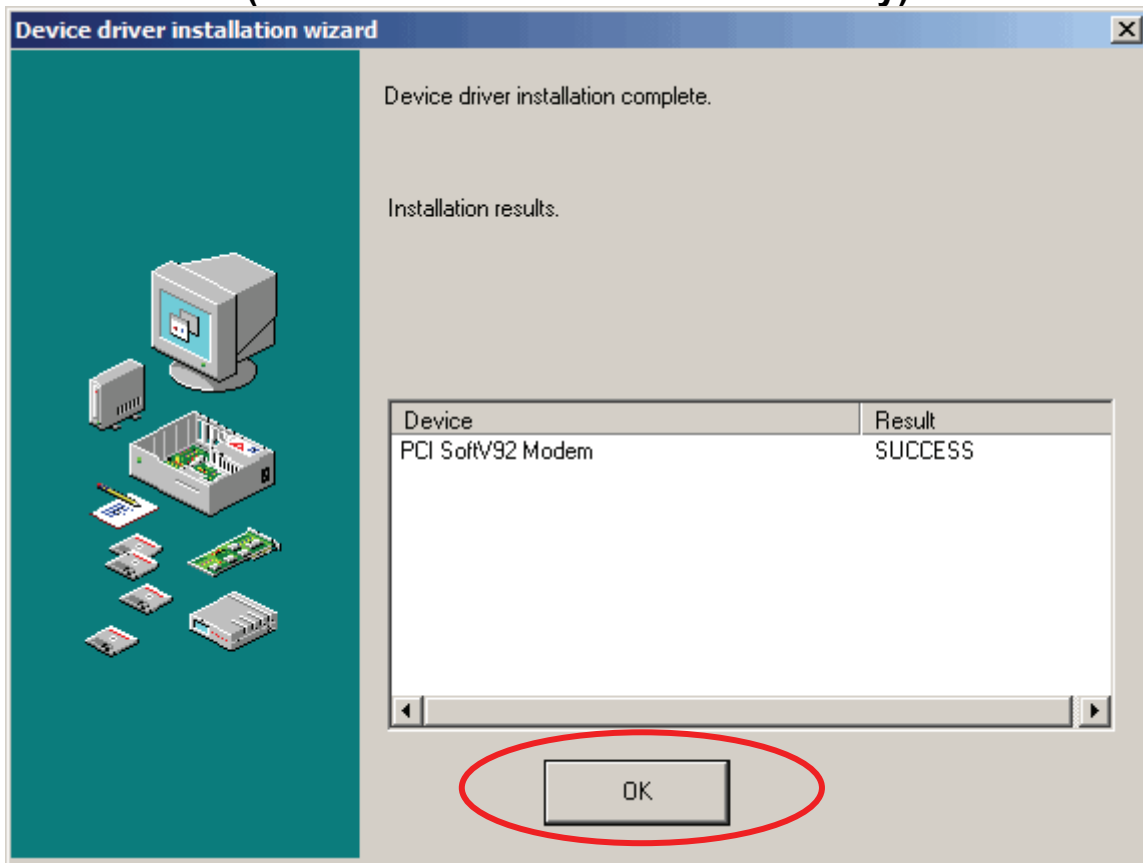
14. Click " OK ". (For Windows Vista/2008/7 User only)



15. Click " Install ". (For Windows Vista/2008/7 User only)



16. Click " OK ". (For Windows Vista/2008/7 User only)



If you can not perform these procedures smoothly as above, please perform the file directly:

CD:\Autorun.exe

Basic AT Command Guide

T - Set Tone Dial Default

This command forces DTMF dialing until the next P dial modifier or P command is received. The modem will set an S-Parameter bit to indicate that all subsequent dialing should be conducted in tone mode. Note that the DP command will override this command. Clears S14 bit 5.

This command may not be permitted in some countries. (See P.)

Syntax

T

Result Codes

OK

P - Set Pulse Dial Default

This command forces pulse dialing until the next T dial modifier or T command is received. Sets S14 bit 5.

As soon as a dial command is executed which explicitly specifies the dialing mode for that particular call (e.g., ATDT..), this command is overridden so that all future dialing will be tone dialed. (See T command.)

This command may not be permitted in some countries.

A - Answer The modem will go off-hook and will attempt to answer an incoming call if correct conditions are met. Upon successful completion of answer handshake, the modem will go on-line in answer mode. This command may be affected by the state of Line Current Sense, if enabled. (Most countries do not require Line Current Sense.) Operation is also dependent upon +FCLASS command and country-specific requirements.

If +FCLASS=0 is selected, the modem will enter the connect state after exchanging carrier with the remote modem. If no carrier is detected within a period specified in register S7, the modem will hang up. Any character entered during the connect sequence will abort the connection attempt.

If +FCLASS=1.0 is selected, the modem will go off-hook in V.21 answer mode. It will generate the V.21 2100 Hz answer tone for 3 ± 0.5 seconds. Following a delay of 70 ms, it will proceed as if the +FTH=3 command were issued. At any stage up to (but excluding) the +FTH=3 command state, any character will abort the communication. (See the description of the +FTH command for details.)

H - Disconnect (Hang-Up)

This command initiates a hang up sequence. This command may not be available for some countries due to PTT restrictions.

Syntax

H[<value>]

Defined Values

<value> Decimal number corresponding to the selected option.

- 0 The modem will release the line if the modem is currently on-line.
- 1 If on-hook, the modem will go off-hook and remain in command mode.

Result Codes

OK <value> = 0 or 1.

ERROR Otherwise.

O - Return to On-Line Data Mode

This command specifies that the modem will enter the on-line data mode from the on-line command mode with or without a retrain. If in the off-line command mode when this command is entered, the modem reports ERROR.

Syntax

O[<value>]

Defined Values

<value> Decimal number corresponding to the selected option.

- 0 Enters on-line data mode from the on-line command mode without a retrain. Handling is determined by the Call Establishment task. Generally, if a connection exists, this command connects the DTE back to the remote modem after an escape (+++).
- 1 Performs a retrain then enters on-line data mode from the on-line command mode.

Result Codes

OK <value> = 0 or 1 and a connection exists.

ERROR Otherwise or no connection exists

L - Speaker Volume

This command sets the speaker volume control according to the parameter supplied.

Syntax

L[<value>]

Defined Values

<value> Decimal number corresponding to the selected option.

- 0 Low speaker volume.
- 1 Low speaker volume. (Default.)
- 2 Medium speaker volume.
- 3 High speaker volume.

Result Codes

OK <value> = 0 to 3.

ERROR Otherwise.

M - Speaker Control

This command controls speaker on or off according to the supplied parameter.

Syntax

M[<value>]

Defined Values

<value> Decimal number corresponding to the selected option.

- 0 Speaker off.
- 1 Speaker on during call establishment, but off when receiving carrier. (Default.)
- 2 Speaker on.
- 3 Speaker is off when receiving carrier and during dialing, but on during answering.

Result Codes

OK <value> = 0 to 3.

ERROR Otherwise.

&V - Display Current Configuration and Stored Profile

This command reports the current (active) configuration and the stored (user) profiles.

Syntax

&V

Result Code

OK

Example:

AT&V

ACTIVE PROFILE:

E1 L1 M1 Q0 T V1 X0 &C1 &D2 &G0 &T0

S00:000 S01:000 S02:043 S03:013 S04:010 S05:008 S06:004

S07:050 S08:004

S10:014 S12:050 S16:000 S18:000 S29:070

STORED PROFILE 0:

E1 L1 M1 Q0 T V1 X4 &C1 &D2 &G0 &T0

S00:000 S02:043 S06:004 S07:050 S08:004 S10:014 S12:050

S18:000 S29:070

OK

&W - Store Current Configuration

This command saves the current (active) configuration (profile), including S-Parameters, in the Registry. The current configuration is comprised of a list of storable parameters illustrated in the &V command. These settings are restored to the active configuration upon receiving an Z command or at power up.

Syntax

&W

Result Code

OK

***B - Display Blacklisted Numbers**

This command requests the modem to return a list of blacklisted numbers to the DTE. The format of the response is shown by the example below. Permanently forbidden numbers as defined by country requirements will not appear on this list. If no numbers are blacklisted, only the OK result code is issued. Example: NO. - PHONE NUMBER -

1; 4175537660
2; 8288924961
3; 3887278862
4; 3124839442
5; 6284664
OK

***D - Display Delayed Numbers**

This command causes the modem to send a list of the delayed numbers together with the delay associated with each. The modem will return a list of delayed telephone numbers as defined in the *B command. The format of the response is shown by the example below (delay times are shown as hours:minutes:seconds). If no numbers are delayed, only the OK result code is issued.

Example:

NO. - PHONE NUMBER -DELAY

1; 8264734660 2:00:00
2; 7532634661 2:00:00
3; 2587334662 0:02:00
4; 7532651663 0:03:25
5; 7459931664 0:01:45
OK

V.92 +P and –Q Commands

This section describes the +P (PCM DCE) and –Q commands and parameters used to control the V.92 Mode operation.

+PCW - Call Waiting Enable

This command controls the operation of the modem in the presence of call waiting.

Syntax

+PCW=<value>

Defined Values

<value> Decimal number corresponding to the selected operation.

- 0 Request modem-on-hold if enabled by +PMH and collect caller ID information if enabled by +VRID. Toggle V.24 circuit 125. (Default.)
- 1 Hang-up.
- 2 Ignore call waiting.

Result Codes

OK <value> = 0, 1, or 2.

ERROR Otherwise.

Reporting Selected Value(s)

Command: +PCW?

Response: +PCW: <value>

Example: +PCW: 0 For the default setting.

Reporting Supported Range of Parameter Values

Command: +PCW=?

Response: +PCW: (<value> range)

Example: +PCW: (0,1,2)

+PMH - Modem-on-Hold Enable

This command controls the selection of modem-on-hold in the modem. The action of the modem in response to modem-on-hold events is determined by the state of this command as well as the state of a negotiated handshake with a V.92-compliant server in V.92 Mode.

Syntax

+PMH=<value>

Defined Values

<value> Decimal number corresponding to the selected operation.

0 Modem-on-hold enabled in V.92 Mode. (Default.)

1 Disabled modem-on-hold.

Result Codes

OK 0 or 1 in V.92 Mode

ERROR Otherwise.

Reporting Current or Selected Value

Command: +PMH?

Response: +PMH: <current value>

Example: +PMH: 0 For the default setting.

Reporting Supported Range of Parameter Values

Command: +PMH=?

Response: +PMH: (<value> range)

Example: +PMH: (0,1)

+PMHT – Modem-on-Hold Timer

This command controls whether or not the modem will grant or deny a modem-on-hold (MOH) request as well as setting the MOH Timeout value.

Syntax

+PMHT=<value>

Defined Values

<value> Decimal number corresponding to selected setting.

- | | |
|----|--|
| 0 | Deny V.92 modem-on-hold Request (Default.) |
| 1 | Grant MOH with 10 second timeout |
| 2 | Grant MOH with 20 second timeout |
| 3 | Grant MOH with 30 second timeout |
| 4 | Grant MOH with 40 second timeout |
| 5 | Grant MOH with 1 minute timeout |
| 6 | Grant MOH with 2 minute timeout |
| 7 | Grant MOH with 3 minute timeout |
| 8 | Grant MOH with 4 minute timeout |
| 9 | Grant MOH with 6 minute timeout |
| 10 | Grant MOH with 8 minute timeout |
| 11 | Grant MOH with 12 minute timeout |
| 12 | Grant MOH with 16 minute timeout |
| 13 | Grant MOH with indefinite timeout |

Result Codes

OK 0-13 in V.92 Mode (+MS=V92)

ERROR Otherwise

Reporting Current or Selected Values

Command: +PMHT?

Response: +PMHT: <value>

Example: +PMHT: 0 For the default setting.

Reporting Supported Range of Parameter Values

Command: +PMHT=?

Response: +PMHT: (<value> range)

Example: +PMHT: (0,1,2,3,4,5,6,7,8,9,10,11,12,13)

Troubleshooting

This appendix contains information that will help you to solve some of the common problems you might encounter, while using this 56Kbps PCI modem. For further assistance, contact your dealer.

Modem does not respond to AT commands

- There may be a COM port/IRQ conflict. Reconfigure the modem COM port address and IRQ line.
- Make sure that you have set the correct COM port and IRQ in the communications software.
- Make sure the system is in Terminal mode of your communications software.

Modem cannot dial and “NO DIALTONE” message appears on the monitor

- Check the phone cord connection. Make sure that the jack on the modem labeled Line is connected to an analog phone wall jack.
- The modem cannot recognize the dial tone. This is typical in some corporate PBXs. Use the ATX1 command in your setup string to enable Blind Dial.
-

The modem does not answer an incoming call

- Auto-answer function is disabled. Enable the function through software program or by sending the ATSO=1 command to your modem in terminal mode.
-

The modem disconnects while online

- This may be caused by line interference. Retry the connection by dialing the numbers several times.
- An incoming call may have broken the connection if the
Call-waiting feature is enabled. Disable Call-waiting and
try again.

Garbage characters display on the monitor

- Set your modem to the same word length, parity, and stop bits as the remote modem.
- Make sure that your software and modem are set to the same flow control setting.
- The software may not be set for correct terminal emulation.
Configure the software to correct type. ANSI terminal emulation is the most commonly used.
- Type the AT&F command to load the factory default settings